

ORION

CREW EXPLORATION VEHICLE

WEEKLY ACCOMPLISHMENTS



02.19.10



The Attitude Control Motor (ACM) arrived at White Sands Missile Range in New Mexico (shown above, below and in banner) in preparation for Pad Abort 1. With the arrival of the ACM, all of the major components of the Launch Abort System are on site ready for final integration.





Construction progress continues on the Reverberant Acoustic Test Facility (RATF) at the Plum Brook Facility in Sandusky, Ohio.

The third 15-foot wall pour brings the height of the RATF walls to about 45 feet from the finished floor. When the project is complete, the RATF, will simulate spacecraft launch and ascent acoustic environments, accommodating high power acoustic testing of large space vehicles. It will be one of the largest and most powerful in the world, reaching an overall sound pressure level of the 163dB in the empty chamber.



A demonstration of an alternate parachute testing technique was conducted on February 9, 2010 at the U.S. Army Yuma Proving Grounds in Arizona. This is one of several demonstration tests being conducted to address the problems encountered during a drop of the Parachute Test Vehicle during the summer of 2008 which revealed issues in the test apparatus and techniques while testing from the C-130 platform.

To demonstrate the test technique, a mockup pallet used to

simulate the size and weight of an Orion capsule was dropped from a C-130 aircraft, 25,000 feet above the desert. A problem occurred during the release of the extraction parachute used to remove the pallet from the aircraft. The deployment of the chutes is sequential in a normal test scenario: the extraction chute pulls out the programmer chute used to orient the pallet and place it into the desired conditions for the test and the programmer in turn pulls out the test pallet parachutes. During the deployment, it appears the extraction chute did not

release from the pallet; therefore the programmer and chute system were not activated. The extraction parachute release is activated by an army supplied attach mechanism known as an Extraction Force Transfer Coupling (EFTC) used as standard equipment on military drops. The pallet was retrieved and will be returned to NASA Johnson Space Center for a failure investigation to determine root cause and corrective action. Additional details will be available upon completion of the investigation.

